


REMARKS

Entry of this First Preliminary Amendment for the above-identified patent application is respectfully requested. Claims 42, 47-49, and 60 have been canceled. Claim 62 has been added. Upon entry of this response, claims 1-41, 43-46, 50-59, 61, and 62 will be pending in the application.

Respectfully submitted,

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Marked up versions of claims 1, 3, 4, 5, 7, 9-13, 15, 18, 20-33, 36, 40, 41, 45, 46, 50-59, and 61, which are amended herein, showing all of the changes relative to the previous version of each.

1. A method for communicating data between a fiber optic data network and an electric power system, comprising:

communicating a first data signal [on] with the fiber optic data network;
converting between the first data signal [to] and a second data signal; and
communicating the second data signal with a transformer bypass device for
communication with [on] the electric power system.

3. The method of claim 1, wherein the [second data signal is an analog signal] first data signal is compliant with the Synchronous Optical Network standard.

4. The method of claim [3]1, wherein [the analog signal is modulated with] a radio frequency signal is modulated by the second data signal.

5. The method of claim 1, wherein the first data signal is received [on] from the fiber optic data network.

7. The method of claim 1, wherein the second data signal is received [on] from the electric power system.

9. The method of claim 1, [wherein a fiber optic interface device converts the signals] further comprising routing the second data signal.

10. The method of claim 1, wherein the electric power system is a low-voltage [premise system] network located within a customer premise.

11. The method of claim 1, wherein the electric power system is a low-voltage [distribution system] network.

12. The method of claim 1, wherein the electric power system is a medium-voltage [distribution system] network.
13. The method of claim 1, wherein the electric power system is a high-voltage [transmission system] network.
15. The method of claim 14, wherein a power line interface device converts the second data signal to the third data signal.
18. The method of claim 1, wherein the [first] second data signal is communicated with a [content provider via the fiber optic data network] power line interface device.
20. A device for converting data between a fiber optic data network and an electric power system, comprising:
a first interface port for communicating a first data signal [from] with the fiber optic data network;
a second interface port for communicating [the] a second data signal [on] with the electric power system; [and]
[a converter in communication with the first interface port and the second interface port for converting the first data signal to a second data signal to be communicated on the electric power system]
a fiber optic transceiver in communication with the first interface port; and
a modem in communication with the fiber optic transceiver and the second interface
port.
21. The device of claim 20, wherein the [converting comprises modifying the first data signal from a digital signal to an analog signal] fiber optic transceiver converts a fiber optic data signal received at the first interface port to an electrical data signal.

22. The device of claim [20] 21, wherein the [converting comprises modifying the second data signal from an analog signal to a digital signal] modem receives the electrical data signal and modulates a carrier signal with the electrical data signal to form a first modulated data signal for communication to the electric power system.
23. The device of claim 20, wherein the [converter comprises a fiber optic transceiver] modem demodulates a modulated data signal received at the second interface port to produce a demodulated data signal for communication to the fiber optic transceiver.
24. The device of claim [20] 23, wherein the [converter comprises a modem] fiber optic transceiver converts the demodulated data signal to an optical signal for communication to the fiber optic data network.
25. The device of claim 20, [wherein the converter comprises] further comprising a router in communication with the fiber optic transceiver and the modem.
26. The device of claim 20, wherein the [first data signal is a fiber optic-based signal] second interface port is communicatively coupled to a transformer bypass device.
27. The device of claim [20] 22, wherein the [second data signal is an analog signal] modem demodulates a second modulated data signal received at the second interface port to produce a demodulated data signal for communication to the fiber optic transceiver.
28. The device of claim [20] 27, wherein the [converter converts the second data signal to a first data signal to be communicated on fiber optic data network] fiber optic transceiver converts said demodulated data signal to an optical signal for communication to the fiber optic data network.
29. The device of claim 20, wherein the electric power system is a low-voltage [premise system] network located within a customer premise.

30. The device of claim 20, wherein the electric power system is a low-voltage [distribution system] network.
31. The device of claim 20, wherein the electric power system is a medium-voltage [distribution system] network.
32. The device of claim 20, wherein the electric power system is a high-voltage [transmission system] network.
33. The device of claim 20, further comprising [converting] a conversion device to convert the second data signal to a third data signal, wherein the third data signal is capable of being transmitted on a telecommunications network.
36. A [communication network, comprising:] device for communicating data between a fiber optic data [system] network that carries [a first data signal] fiber optic data signals and [;] an electric power system that carries [a second data signal; and] electrical data signals, comprising:
[a converter in communication with the fiber optic data system and the electric power system, wherein the converter converts the first data signal to the second data signal.]
a fiber optic transceiver in communication with the fiber optic data network;
a router in communication with the fiber optic transceiver; and
a modem in communication with the router and the electric power system.
40. The communication network of claim [37] 36, wherein the [telecommunications network is in communication with a network device] modem communicates with the electric power system through a transformer bypass device.

41. The communication network of claim [40] 36, wherein the [network device includes at least one of the following: a telephone, a computer, a facsimile machine, a television, and a household appliance] fiber optic transceiver communicates with the fiber optic data network using the Synchronous Optical Network standard.

45. The communication network of claim 36, [further comprising] wherein an electric transformer [in communication with] forms part of the electric power system.

46. The communication network of claim [36] 45, further comprising a power line bridge in communication with the electric power system and the [fiber optic data network] modem, the power line bridge providing a path for data to bypass the electric transformer.

50. The communication network of claim 36, wherein the electric power system is a low-voltage [premise system] network located within a customer premise.

51. The communication network of claim 50, wherein the router selects said low-voltage network from a plurality of low-voltage networks for transmission of data signals [wherein the converter is in direct connection with the low-voltage premise system].

52. The communication network of claim 36, wherein the electric power system is a low-voltage [distribution system] network.

53. The communication network of claim 52, wherein the router selects said low-voltage network from a plurality of low-voltage networks for transmission of data signals [wherein the converter is in direct connection with the low-voltage premise system].

54. The communication network of claim 36, wherein the electric power system is a medium-voltage [distribution system] network.

55. The communication network of claim 54, wherein the [converter] modem is coupled to [in direct connection with] the medium-voltage [distribution system] network.

56. The communication network of claim 36, wherein the electric power system is a high-voltage [transmission system] network.

57. The communication network of claim 56, wherein the [converter] modem is coupled to [in direct connection with] the high-voltage [transmission system] network.

58. A method for communicating data between a fiber optic data network and an electric power system, comprising:

receiving a first fiber optic data signal with an optical transceiver;

generating a second data signal based on the first fiber optic data signal;

modulating [the fiber optic data signal with] a radio frequency signal with the second data signal to generate a first modulated data signal;

[creating an analog signal;]and

transmitting the [analog signal] first modulated data signal to the electric power system.

59. The method claim 58, further comprising:

receiving the [analog signal] first modulated data signal from the electric power system;

converting the [analog] received signal to a premise-based data signal; and

providing the premise-based data signal to a network device.

61. The method claim [60] 58, further comprising:

receiving [the analog signal] a second modulated data signal from the electric power system;

demodulating the [analog signal with a radio frequency signal] second modulated data signal to provide a first demodulated data signal;

creating a second fiber optic data signal based on said first demodulated data signal;
[receiving the fiber optic data signal with an optical transceiver;]and
transmitting the second fiber optic data signal to the fiber optic data network.